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A CROSS-CULTURAL STUDY OF SMOKING AMONG YOUTH IN THE UNITED STATES AND THE REPUBLIC OF CHINA

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ABSTRACT

Comparable questionnaires were used to obtain data on a comparison of the smoking behaviors of youth in the United States and the Republic of China. In spite of differences in economic development and cultures approximately the same percentages of teen-aged males smoke in R.O.C. as in the U.S.A. Smoking behavior for teen-aged females remains considerably lower for the R.O.C. Social and personal factors combine in young males in both countries in the form of identity seeking. Smoking remains one of several rites of passage initiating young males in both countries into a transition from childhood into manhood.

INTRODUCTION

One quarter to one third of school-aged children become regular smokers by the time they enter the sixth grade. These statistics have been reported by several researchers in the United states (1) and confirmed by recent studies done in the United Kingdom (2,3), France (4), Norway (5) and Southern Europe (6). Considerably less information, however, is available on the smoking behavior of young people in developing countries and how such data would compare with data on smoking behavior of youth in the west. This paper seeks to make such a comparison, namely, between the smoking behavior of young people in the Republic of China (ROC) and that of young people in the U.S.A. There are some significant similarities and differences between the two countries that are relevant to such a comparison. First, while still a developing country, the R.O.C. has made great strides towards industrialization in the last three decades of this century. Secondly, families in the R.O.C. retain many of their traditional perogatives among them the right of parents to strongly enforce rules of behavior in their children. Whereas in the U.S.A. families are in transition and parental perogatives are somewhat weakened (7). Thirdly, attitudes towards smoking behavior differ in the two countries.

The Surgeon General's report in 1979 in the U.S.A. and the recent call from the Surgeon General's office for a smoke free America by the year 2000 represents a growing climate of anti-smoking sentiment in this country. The R.O.C., however, where

cigarette distribution is a government monopoly, has a more permissive attitudes towards adult smoking than is presently the case in the U.S.A. Never-the-less, strong family prohibitions directed towards discouraging children from smoking are commonplace in the R.O.C. What then are the differences or similarities between the smoking behavior of youth in the U.S.A. and the R.O.C.? And are these differences and/or similarities related to the differences in the two countries between their stages of economic development, the sociolization of children within the family and societal attitudes towards smoking?

Several research questions are asked: First, are the frequencies of smoking behavior similar among youth in the two countries? Second, are there sex differences and similarities in smoking behavior among young men and women in the two countries? Third, are there sex differences and similarities among adult male and female smoking behavior in the two countries? Fourth, is the age of onset of smoking behavior similiar or different between youth in two countries? Fifth, is there a theory of socialization that is useful in explaining the similarity and differences in the frequency, sex differences and adoption of smoking behavior among Republic of China and American youth?

METHOD

There are a number of methodological difficulties in the comparison of the various smoking studies. Some of these include: different criteria of smoking, year the study was conducted, the background and age of the population, the procedures applied and the research instrument used to obtain the data.

To avoid the above mentioned methodological difficulties the authors selected only those studies that used similar questionnaires and on which the data were collected and analyzed in early 1980s. All these studies all included subjects in the secondary schools, both junior and senior levels, and had similar procedures employed in the data collection. Moreover, the studies selected in this comparative analysis are limited only to those studies that were conducted in either Massachusetts, the U.S.A. or in Taipei, Taiwan, the R.O.C.

Entry into the school system generally involved obtaining the permission and support of the school superintendent. Subsequently, meetings with the principals of each school were arranged in order to establish a logistic for data collection. Standard human subjects procedures were followed to assure informed consent of respondents, confidentiality, and the right to refuse to answer any of the questions. Each participating teacher was given a personalized letter explaining the purpose of the survey and its administrative procedure. The teachers were asked to assist research assistants in the administration and collecting of the questionnaires during a designated class period.

The 62 items questionnaire used in this study was adapted from one developed at the University of Illinois (20) and later modified by Chen and Thompson in their study of smoking behavior of junior high school students (8). This questionnaire was translated into Chinese for adoption in the Chinese studies. Attached to the questionnaire was a cover letter to explain to students the purpose of the study and instructions to complete the questionnaire. Students were encouraged to ask questions, to work speedily and to try to answer all items.

RESULTS

Table 1 presents a brief description of the differences in smoking atmosphere between the U.S.A. and the R.O.C. Most important is the presence of strong opposition to smoking reflected in public policy and public attitudes in the U.S.A. as compared to more acceptable attitudes towards smoking behavior in the R.O.C.

INSERT TABLE 1 HERE

Table 2 represents a general comparison of smoking among youth in the two countries. These five studies (9-13) were selected because they all share the use of the similar research questionnaire. Two of the three studies recently published in the R.O.C. show that significantly fewer Chinese youth smoke cigarettes than their American counterparts. Chi's study, on the other hand, presents an equal number of young smokers in both the R.O.C. and in the U.S.A. Chi, however, used as his criteria of smoking behavior those students who have smoked at least one cigarette in the past.

INSERT TABLE 2 HERE

Table 3 presents a comparison of ninth grade cigarette smokers in the U.S.A. and the R.O.C. These four studies, two on Chinese youth and two on American youth, are roughly comparable. Again, the two U.S.A. studies show more American youth as smokers

then is the case of youth in the R.O.C. Hwang's Chinese population, however, has almost as many smokers as Chen and Winder's U.S.A. population. Hwang's population differed from the population of the other three studies in being exclusively male. This finding raises a question: are male ninth graders in R.O.C. smoking in numbers comparable to their U.S.A. counterparts?

INSERT TABLE 3 HERE

Table 4 represents a comparison of the percentage of young male and female smokers in the U.S.A. and the R.O.C. Young men and women from the same studies presented in Table 3 were compared. The two recent U.S.A. studies show a slightly greater number of female then male youth are engaged in smoking behavior. The R.O.C. studies show male youth in Taiwan smoking in number comparable with American males. In the U.S.A., however, almost two to three times as many young women smoke as is the case in Taiwan.

INSERT TABLE 4 HERE

Table 5 looks at the comparison among adult smokers in the two countries. Do they reflect the same differences as those that occur among young people? The table shows that a relatively similar high number of adult men and women smoke in the U.S.A. In the R.O.C., however, ten times as many adult men smoke cigarettes as adult women.

INSERT TABLE 5 HERE

Table 6 looks at the onset of smoking by children in the R.O.C. In this study, 7th, 8th and 9th grade students were asked to recall at what age they began to smoke. The criterion for smoking used here was that they had at least sampled one cigarette. Sixth grade represents the high point (26 percent) of young Chinese experimentation with smoking.

INSERT TABLE 6 HERE

Table 7 presents the grade at which the onset of smoking occures in a U.S.A. sample of young people as reported in Chen and Winder's study. In this study, 16 percent of the sixth graders characterize themselves as experimental smokers. By ninth grade, this figure goes up to 31 percent and then declines. It appears that for American youth age of onset for cigarette smoking is slightly, but not significantly, later then for Chinese youth.

INSERT TABLE 7 HERE

CONCLUSION

A comparative study of smoking behaviors of teen-aged youth in the Republic of China and the United of States reveals that, in spite of cultural and economic differeces between the two countries, smoking behaviors are similar between youth in the two countries. This similarity is strengthened by the researchers use of the same questionnaire in both countries, a methodological consideration that makes for ready comparability between the sets of data. Reid (18) suggests four factors associated with the onset of smoking among youth. The present study has highlighted two of these four factors, the personal and the social. The authors have combined these into a social emotional factor which they have called identity seeking by youth in societies in transition. Since both developing countries, the R.O.C. and developed countries, the U.S.A., are in transition; smoking behavior among youth represents one of several rites of passage between childhood and the achievements of adult status. This conceptualization provides health educators with a means to view factors leading to smoking behavior in youth across cultures. Additional data based upon the same questionnaire needs to be obtained from various parts of the world to further test this conceptual approach.

DISCUSSION

The first four research questions are concerned with similarities and differences between Chinese and American youth with respect to smoking behavior. The data as seen in Tables 3 and 4, reflect strong similarities in smoking behavior between teen-aged youth in both countries. These similarities are especially close in the case of the data reported in Table 4 when samples of male youth only are compared.

There is, however, a striking disparity between the number of teen-aged females that smoke in the R.O.C. and in the U.S.A. The data shows no difference between the rates of male and female adolescents who smoke in the U.S.A. while three to four times as many males as females youth smoke in the R.O.C. Roughly, the same number of adult women as men in the U.S.A. smoke while in the R.O.C. almost ten times as many adult men as adult women smoke. These figures for the U.S.A. represent a rapid rise in women smokers from pre world War II to the present. They parallel for teen-aged women in the U.S.A., the sociological finding of a proliferation of avaliable identity options. The increase in number of teen-aged females that smoke over the number of adult women smokers in R.O.C. suggests that the same forces of industrialism that are at work in the U.S.A. are beginning to be at work in the R.O.C. These forces are creating an identity crisis for adolescent girls who, like their male counterparts, are turning to smoking as a rite of passage. Again, advertisers and market researchers quick to take advantage

of the trend in the U.S.A. have used the symbol of the "liberated woman" to sell cigarettes to American women. The "liberated woman" is a metaphore. A metaphore that stands for the great range of behavioral options, occupational and sexual open to the "new woman" of industrial urban life.

Research question four deals with similarities or differences in the age of onset of smoking behavior. This data, see Tables 6 and 7, indicates an earlier age of onset of experimental smoking behavior for Chinese as compared with American youth. The R.O.C. figures seem to resemble more closely the European figures that were cited earlier in this study. While there are very few studies of age of onset in the U.S.A. the authors are inclined to suspect that the figures reported from the data in Table 7 are low and that age of onset in the two groups is roughly similar.

The fifth research question deals with the issue of the socialization theory that can be used to explain the similarity in the acceptance of smoking behavior of both groups. Since the onset of smoking behavior among both Chinese and American youth begins around ages 12 to 13, the focus of the discussion is on the phenomena of adolescence. It was once thought that adolescence extending roughly from ages 12 to 18 was a difficult period in which young people no longer quite understood the nature or limits of their physical makeup. A more contemporary point of view holds that adolescence is a period of psychological transformation characterized by the discovery of the self. Viewed from the latter point of view, adolescence is a time of transition between childhood and adulthood. Anthropologists (14)

have noted that non-literate socities have nothing that corresponds to adolescence. There is, instead, the "rite de passage", a ceremony that symbolizes the end of childhood and entry into adulthood. Growing up in a modern industrial society such as the R.O.C. and the U.S.A. is a different affair. The priviledges of childhood begin the fade around 10 or 11 years, although, full acceptance into adulthood is still 7 or 8 years away. The task of youth during this period is to attain a personal identity. The authors believe this task is shared equally by Chinese and American youth. Adolescents in the R.O.C. and the U.S.A. begin experimentation with smoking at approximately the same time, namely at 12 and 13 years of age.

Among American youth, the social climate for smoking experimentation is more favorable while among Chinese youth they face strong prohibitions from both home and society. What need does smoking behavior satisfy among young males in both groups, and why is this need so strong that it overwhelms social and family restrictions? An answer may lie in the concept of "rite de passage". The progress of male youth through the perod of adolescence may be marked by several rites of passage each one affirming movement through this psychologically complex period. Smoking behavior as a rite of passage for males meets the need of establishing an identity of masculinity. The smoker identifies with the male image in his culture. Advertisers and market researchers in the U.S.A. have long recognized this factor and have presented such images of masculinity as the cowboy and sports hero in association with smoking.

Furthermore, as Lasch (15), Erikson (16) and others (16)

point out, that as modern industrial societies crowd out the older rural ways with new urban forms of behavior, the role of the family and the father becomes weaker. Symbolic images and symbolic behavior replace family restructions and injunctions and these images and behaviors provide the identity images the adolescents emulate, Chinese and American male youth, therefore, experiment with smoking in early adolescence as a means of seeking validation of similiar identity needs.

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Table 1 - Different Smoking Atmosphere in the U.S.A. and in the R.O.C.

categories	U.S.A.	R.O.C.
Anti-smoking atmosphere	strong	weak
Acceptable adult behavior	no	yes
Prohibition on youths	weak	strong
Major government income	insignificant	significant
Women smoking	acceptable	prohibited

Table 2. Percentage of Young Cigarette Smokers in Various Study Groups in the U.S.A. and in the R.O.C.

Study Groups	School Location	Year	Percent Smoking	Grade Levels	Sample Size
Chen & Thompso	Worcester	1980	31.96	9	413
Chen & Winder	Northampton	1984	25.91	9,12	247
Chi	Taipei	1984	28.18	10-12	770
Huang	Taipei	1982	11.38	7-9	624
Chen	Taipei	1984	9.48	7-9	496

*Smokers mean those who smoke regularly or occasionally.
**Smokers mean those who have smoked at least one cigarette in the past.

Table 3. Percentage of Nineth Grade Cigarette Smokers in the U.S.A. and in the R.O.C.

Study Groups	Percent Smokers	Sample Size
U.S.A.		
Chen & Thompson	31.96	132
Chen & Winder	20.80	127
R.O.C.		
Huang	20.32	187
Chen	17.18	163

*Included only male students in the study.

Table 4. A Comparison of the Percentage of Young Male and Female Smokers in the U.S.A. and in the R.O.C.

Study Groups	Male	Female
Chen & Thompson	28.0	35.7
Chen & Winder	12.0	18.9
Chi	38.19	12.25
Huang	20.0	5.0

Table 5. A Comparison of Smoking Status of Adults in the U.S.A. and in the R.O.C.

Study Groups	Male	Female	Combined
Surgeon General's Report	41.20	31.80	36.40
Chen & Thompson	45.74	44.23	44.96
Huang	55.14	5.44	30.41
Chen	63.53	6.21	34.87

Table 6. Smoking Onset by Grade Levels

Grade Levels	Chen		Huang	
1st grade	5.74	5.74	2.52	2.52
2nd grade	6.22	11.96	1.26	3.78
3rd grade	8.61	20.57	4.40	8.18
4th grade	8.13	28.70	4.40	12.58
5th grade	12.44	41.14	17.61	30.19
6th grade	26.32	67.46	25.79	55.98
7th grade	15.79	83.25	22.01	77.99
8th grade	11.01	94.26	14.47	92.46
9th grade	5.74	100.00	7.55	100.00

Table 7 - Student Smoking Status by Grade Levels

Smoking Status	Grade Levels			Total N
	Sixth	Nineth	Twelveth	
Regular Smoker	6(2.3)	16(12.8)	32(26.7)	54(10.5)
Occasional Smoker	11(4.2)	10(8.0)	6(5.0)	27(5.3)
Experimental Smoker	44(16.6)	39(31.2)	34(28.3)	117(22.9)
Ex-Smoker	4(1.5)	6(4.8)	5(4.2)	15(2.9)
Non-Smoker	200(75.5)	56(43.2)	43(35.8)	299(58.4)

*Source: T.L. Chen and A. E. Winder, "A Comparison of Smoking Attitudes and Practices of School Children at 6th, 9th and 12th Grade Levels", Paper presented at the 1984 American Public Health Association Convention, Anaheim, California, 1984.